



MATERIAL SAFETY DATA SHEET

MSDS Review Date: November 2009

E - SPHERES[®]

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

- 1.1 Identification of the Product:** E-SPHERES SL Series; BL Series
- 1.2 UN Proper Shipping Name:** None Allocated.
- 1.3 Recommended Use:** Lightweight inert filler.
- 1.4 Supplier:** Enviroospheres Pty Ltd
PO Box 497, Lindfield NSW 2070 Australia
- 1.5 ABN:** 93 077 898 849
- 1.6 Telephone:** (+61 2) 9416 5644
- 1.7 Fax:** (+61 2) 9416 1718
- 1.8 Emergency Telephone Number:** (+61 2) 9416 5644
- 1.9 E-mail:** info@enviroospheres.com

2. HAZARDS IDENTIFICATION

- 2.1 Hazard Classification:** Non-hazardous Substance. Non-dangerous goods.
- 2.2 Risk Phrase(s):** None Allocated.
- 2.3 Safety Phrase(s):** None Allocated.

3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Appearance:** SL Series – fine white powder, no odour. BL Series – fine grey/tan powder, no odour.
- 3.2 Ingredients:** Hollow alumino silicate spheres approximately 20 – 500 microns in diameter. The material contains the following inseparable (non-hazardous) phases:

Chemical Name	CAS Number	Proportion
Amorphous alumino silicate	1327-36-2	65 - 85%
Mullite	1302-93-8	20 - 30%
Quartz	14808-60-7	0 - 1%
Calcite	1317-65-3	0 - 5%

Ingredients determined not to be hazardous to 100%.

Quartz is at or less than the analytical detection limit for XRD analysis (less than 1%).
Any quartz is fused into the ceramic matrix and hence it is not biologically available.
The spheres are inert and do not leach detectable levels of heavy metals.

This product is an article as defined by TSCA regulations and is exempt from TSCA Inventory listing requirements.



4. FIRST AID MEASURES

4.1 Description of Necessary First Aid Measures:

- Ingestion:** Drink water do not induce vomiting.
Eye: Flush continuously with water for 15 minutes, eyelids to be held open, do not rub eyes.
Skin: If skin becomes irritated remove clothing, wash areas of contact with soap and water.
Using a skin cream or lotion may be helpful in reducing irritation.
Inhalation: Remove exposed person to fresh air.

4.2 Medical Attention and Special Treatment:

- First Aid Facilities:** None should be required.
Comments: Treat according to person's condition and specifics of exposure.
Advice to Doctor: Treat symptomatically for irritant effects.

5. FIRE FIGHTING MEASURES

5.1 Suitable Extinguishing Media: Not applicable. Material not combustible.

5.2 Hazards from Combustion Products: Not applicable. Material not combustible.

**5.3 Precautions for Fire Fighters
and Special Protective Equipment:** Not applicable. Material not combustible.

5.4 Hazchem Code: Not applicable.

NFPA Hazard Codes: HEALTH: 1 FIRE: 0 REACTIVITY: 0

UNUSUAL REACTION HAZARD: None.

6. ACCIDENTAL RELEASE MEASURES

6.1 Emergency Procedures: None required.

**6.2 Methods and Materials for Containment
and Clean Up Procedures:** Shovel up bulk, use vacuum cleaner to clean up residues. Laws and regulations may apply to releases and disposal of this material. You will need to determine which local laws and regulations are applicable.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling: Where possible use local exhaust ventilation.

7.2 Conditions for Safe Storage: Keep dry. No special storage requirements.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 National Exposure Standards: No value assigned for this specific material. Recommended values:

10 mg/m³ Particulates Not Otherwise Classified (ACGIH: American Conference of Governmental Industrial Hygienists).

8.2 Biological Limit Values: No biological limit allocated.

8.3 Engineering Controls: Where possible use local exhaust ventilation.

8.4 Personal Protective Equipment:

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK

Avoid skin and eye contact and inhalation of dust. Wear overalls, safety glasses and impervious gloves. Gloves made from the following materials are recommended: neoprene, nitrile rubber, polyethylene/polyvinylidene chloride. Avoid generating and inhaling dusts. If dust exists, wear NIOSH approved respirator based on airborne concentration of contaminants and in accordance with OSHA regulations. Wash contaminated clothing and other protective equipment before storage or reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Description/Properties:

Physical Form, colour and odour:	Fine white/grey powder, no odour.
Vapour Pressure:	Not applicable.
Boiling Point:	Not applicable.
Melting Point:	1200° - 1400°C
Solubility in Water:	Insoluble.
Specific Gravity @ 25°C:	0.75 – 0.95
Flash Point:	Not applicable.
Lower Flammability Limit:	Not applicable.
Upper Flammability Limit:	Not applicable.
Auto ignition temperature:	Not applicable.

10. STABILITY AND REACTIVITY

10.1 Chemical Stability:	Stable.
10.2 Conditions to Avoid:	None known.
10.3 Incompatible Materials:	Can react with strong oxidisers.
10.4 Hazardous Decomposition Products:	None known.
10.5 Hazardous Reactions:	Hazardous polymerisation will not occur.



14. TRANSPORT INFORMATION

14.1 UN Number:	None allocated.
14.2 UN Proper Shipping Number:	None allocated.
14.3 Dangerous Goods (Class and Subs Risk):	None allocated.
14.4 Special Precautions for User:	Not applicable.
14.5 Hazchem Code:	Not applicable.

15. REGULATORY INFORMATION

15.1 SUSDP Poisons Schedule Number: None allocated.

This product is an article as defined by TSCA, EINECS, CDSL, MITI, KECI, AICS, PICCS and CICS regulations, and is exempt from chemical inventory listing requirements.

16. OTHER INFORMATION

Date of Last Revision: April 2007

Contact Points **Technical Manager** (+61 2) 9416 5644

E-SPHERES consist of amorphous and poorly crystalline aluminosilicates with a very low crystalline silica (quartz) content. The quartz is fused into the ceramic matrix and hence it is not biologically available. The spheres are inert and do not leach detectable levels of heavy metals. Particle size analysis indicates that 99% of the particles are greater than 20 micron with less than 0.5% being in the respirable size range. The product may contain very low levels of quartz (typically less than 1%). On the basis of findings of increased lung cancer risk in silicotics in some industries (but not in others), IARC has classified quartz as carcinogenic. However, in line with evidence from other naturally occurring non-fibrous aluminosilicates that also contain low levels of quartz, if dust exposures are kept below the exposure standard, no long term health or toxic effects such as pneumoconiosis or lung cancer are expected.

Disclaimer: This information is based on our current knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. Since EnviroSpheres Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product.

An ISO 9001:2008 Certified Company

envirospheres